




































## Key Operating Instruction

Before proceeding with any operation, unlock the unit by pressing  +  keys at the main interface until the lock icon disappears (unless the machine is unlocked).

No.	Item	Operation Way
1	Lock/Unlock	Press "  " + "  " at the same time for 3s to lock/unlock. When the lock icon appears on the screen, it means that the display is locked.
2	ON/OFF	At the main interface, press "  " to control the system on / off.
3	Select Mode	At the main interface, short press "  " to switch modes between auto mode, heating mode, and cooling mode.
4	Set Temperature	<ul style="list-style-type: none"> <li>At the main interface, press " " or " " to enter the temperature setting, at this point, the set temperature flashes. And then press " " or " " to set the temperature.</li> <li>Press the " " key to save the setting value.</li> </ul>
5	Set Clock	<ul style="list-style-type: none"> <li>Long press " " at the main interface to enter the current time hour setting. The hour part flash. Press " " and " " to adjust.</li> <li>Then press " " enter the current time minute setting. The digital pipe minute part flash. Press " " and " " to adjust.</li> <li>Press " " or 1 minute without operation to save the setting and exit automatically.</li> </ul>
6	Timer	<ul style="list-style-type: none"> <li>Press " " + " " for 3s at the main interface to enter "1 ON" timer setting. The "ON" icon will display, and the hour part will flash. Press " " and " " to adjust. Then press " " to set the minute part. The minute part will flash. Press " " and " " to adjust. Then press " " again to confirm this setting.</li> <li>After timer 1 ON is completed, it will automatically enter the timer 1 OFF setting state, and the "OFF" icon will display.</li> <li>Press " " + " " to enter the timer 2 setting state. The following steps are the same as timer 1.</li> </ul>

No.	Item	Operation Way
6	Timer	<ul style="list-style-type: none"> <li>● Short press the "  " button or no key operation for 20 seconds during the setting process to exit the timing setting, and the set parameters will not be saved.</li> <li>● Press and hold the "  " key for 3 seconds during the setting process, and all timings will be invalid.</li> </ul>
7	Wi-Fi	Press "  " + "  " for 3s to enter the Wi-Fi network configuration mode. At this time, the interface displays SF, which means that you have successfully entered the EZ network configuration mode.
8	Manual Defrosting	<p>At the main interface, press "  " + "  " for 3s to enter the manual defrosting function. The main board will determine whether to enter the manual defrosting function according to the conditions.</p> <p>Manual defrost activates only if the coil detects an ambient temperature <math>\leq 19.4^{\circ}\text{F}</math>, indicated by a flashing "DEFROST" icon on the control panel.</p>
9	Frequency Mode Settings	On the startup interface and the unit is not in automatic mode, short press the "  " key to switch between silent, smart, and powerful modes.

## APP CONTROL

### Step 1

Preparation before connecting:

- Make sure your Wi-Fi router supports 2.4GHz (NOT 5GHz) and 802.11b/g/n bands.

**Note:** Most 5GHz routers can also be set to a 2.4GHz band or dual band.

- Make sure the Wi-Fi name and password are correct.
- Make sure your smartphone or tablet supports a 2.4GHz network.
- Download the App named **AIR.ai** from the App Store (iOS devices) or Google Play (Android devices)

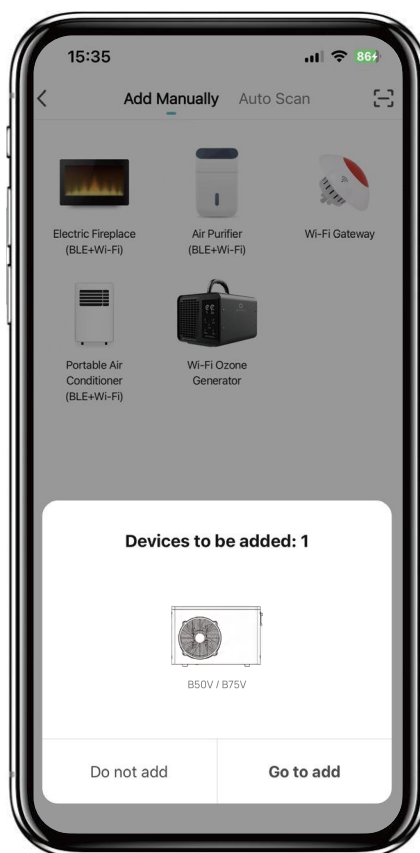
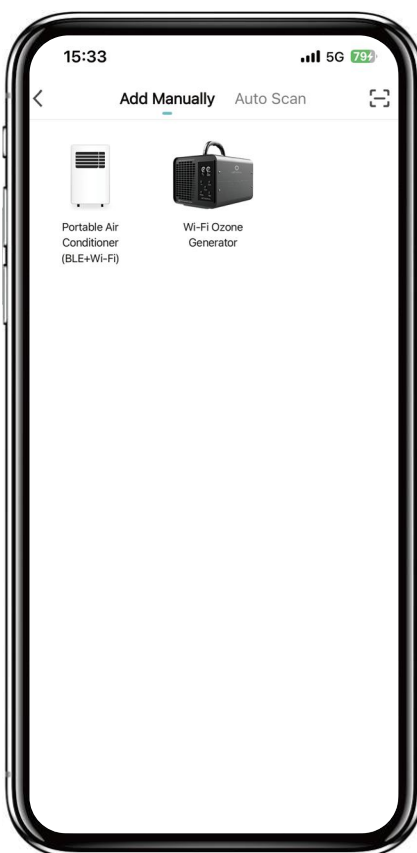
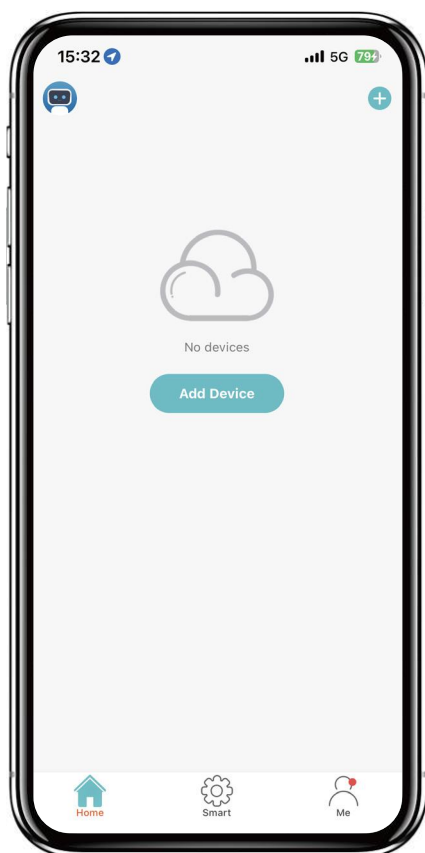


AIR.ai



## Step 2

- Connect your phone to the 2.4 GHz wireless network of your Pool Heat Pump.
- Press and hold the " " + " " keys at the same time for 3 seconds to enter the distribution network. The " " icon will flash rapidly.
- Open AIR.ai and tap the "+" icon in the top right corner.
- The add device page will appear. Tap "Go to add."

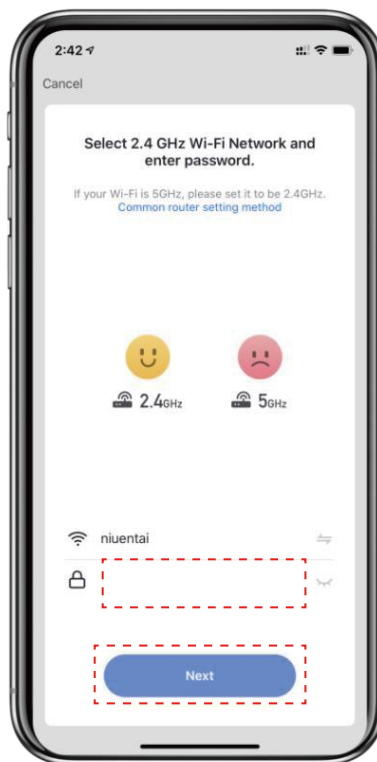


### Step 3

Enter the password of your Wi-Fi network when prompted (same Wi-Fi network to which your smartphone is connected) then click next.

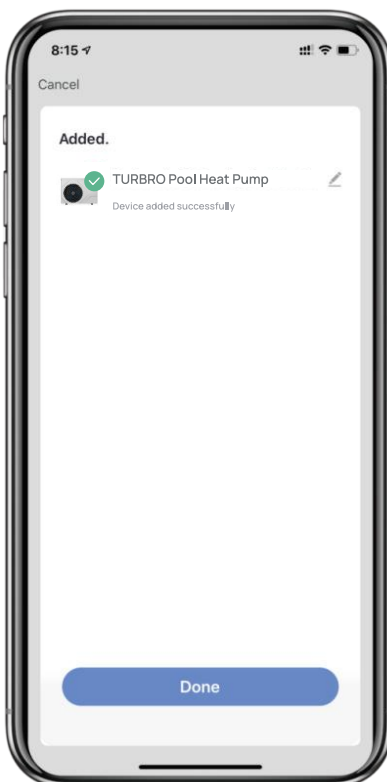
#### Important note:

Pool Heat Pump must be connected to a 2.4 GHz Wi-Fi network. If your router broadcasts 2 Wi-Fi bands (2.4GHz and 5GHz), consult your router user manual to learn how to select the 2.4 GHz Wi-Fi band.



### Step 4

Your device is now connected. You can find the pool heater pump in the device list.

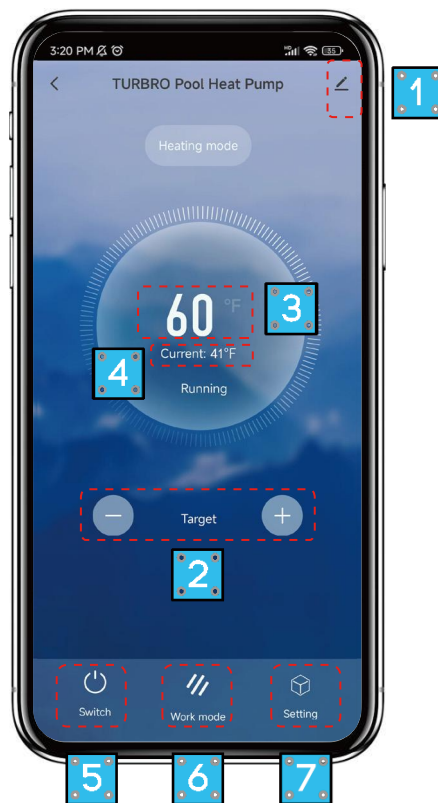


## Software Function Operation

### ● Home Page

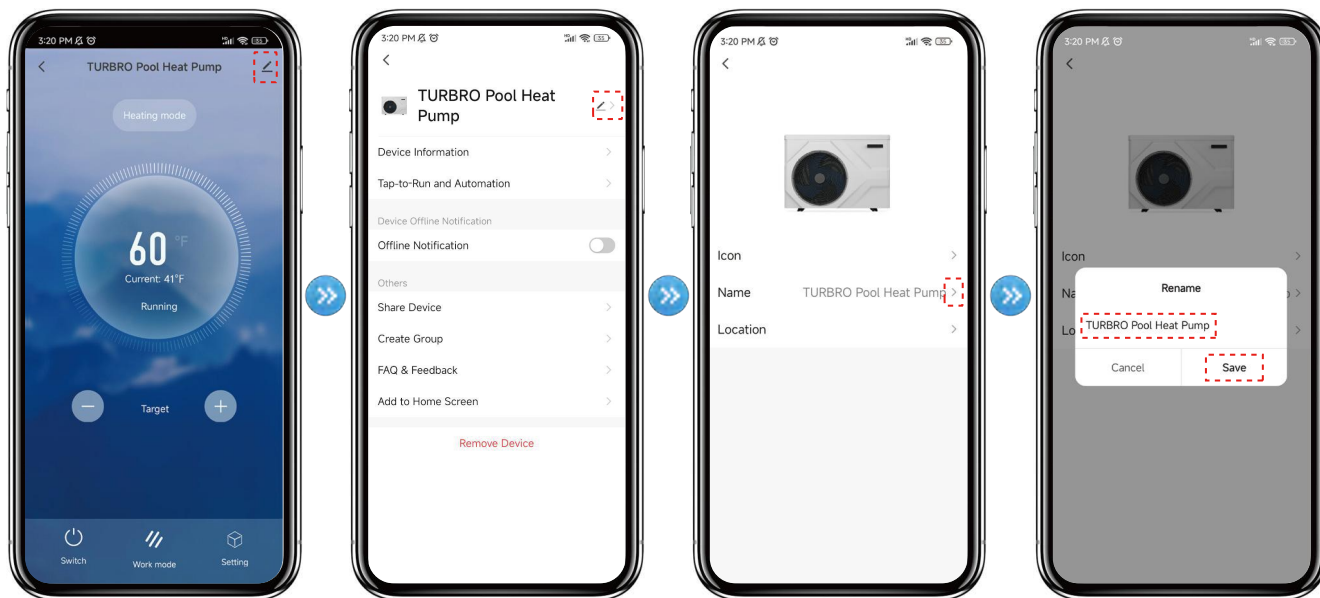
In the main interface, click “Swimming Heat Pump” to enter the operation interface.

- 1 More Settings
- 2 Temperature Setting
- 3 Target Temperature
- 4 Current Temperature
- 5 ON/OFF
- 6 Mode Setting
- 7 Timer Setting



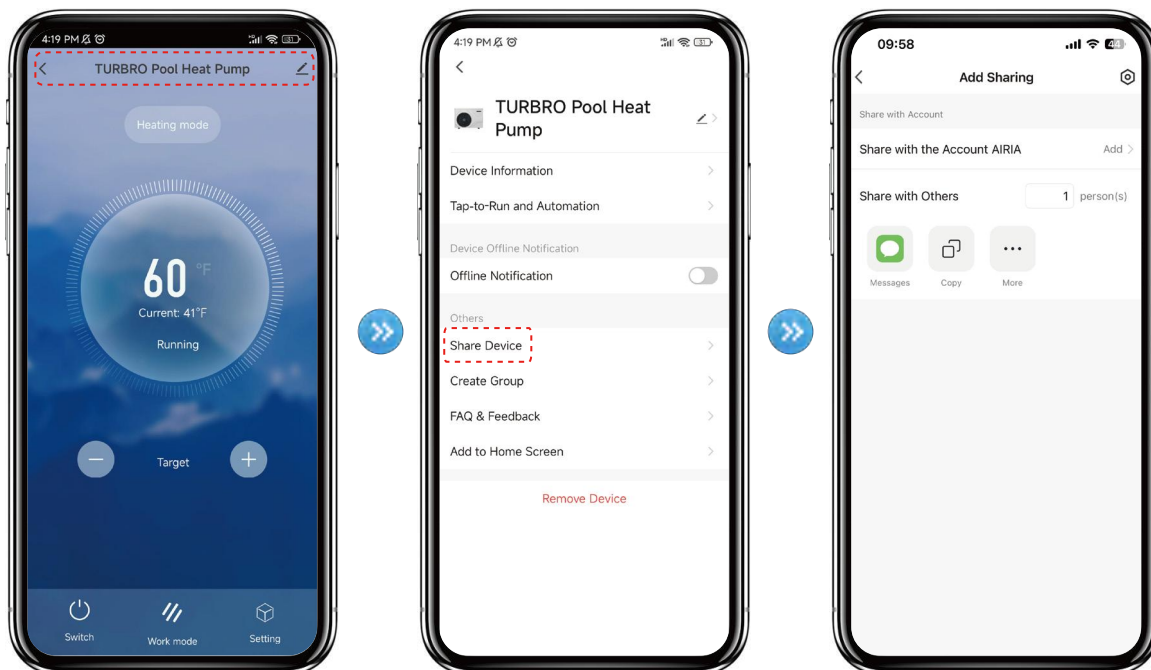
### ● Modify Device Name

Click in the following order to rename the device.




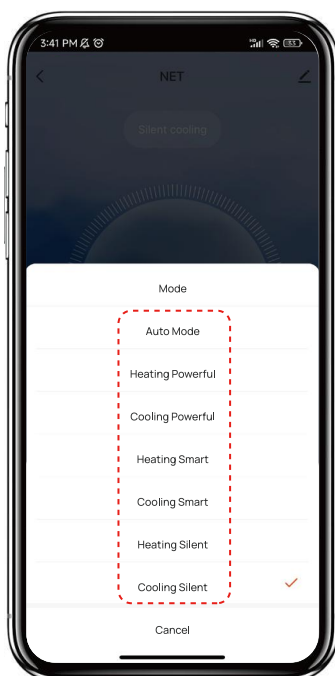
## ● Device Sharing

1. To share a bound device, the user should do so in the following order.
2. After successful sharing, the interface of the person to be shared can control the unit.




## ● Mode Settings

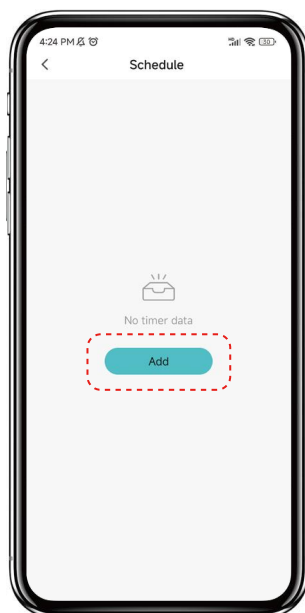
Click “” on the main interface to switch modes, select what you need.



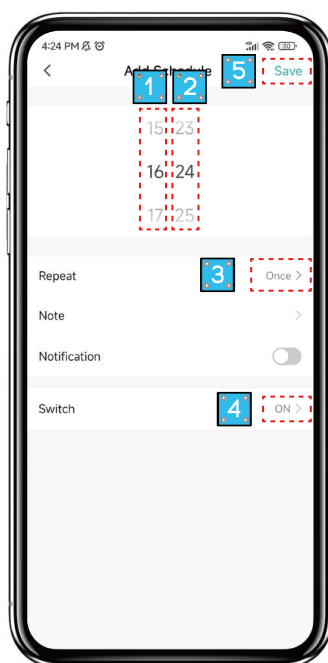
## ● Timer Setting

1. Click “” on the main interface to enter the timer setting interface, as shown below, and click to add the timer.

\*The timer set on the pool heat pump will not appear on the app. Similarly, any timer set on the app will not be shown on the pump. The timer function works regardless of whether it is set by the app or on the machine.




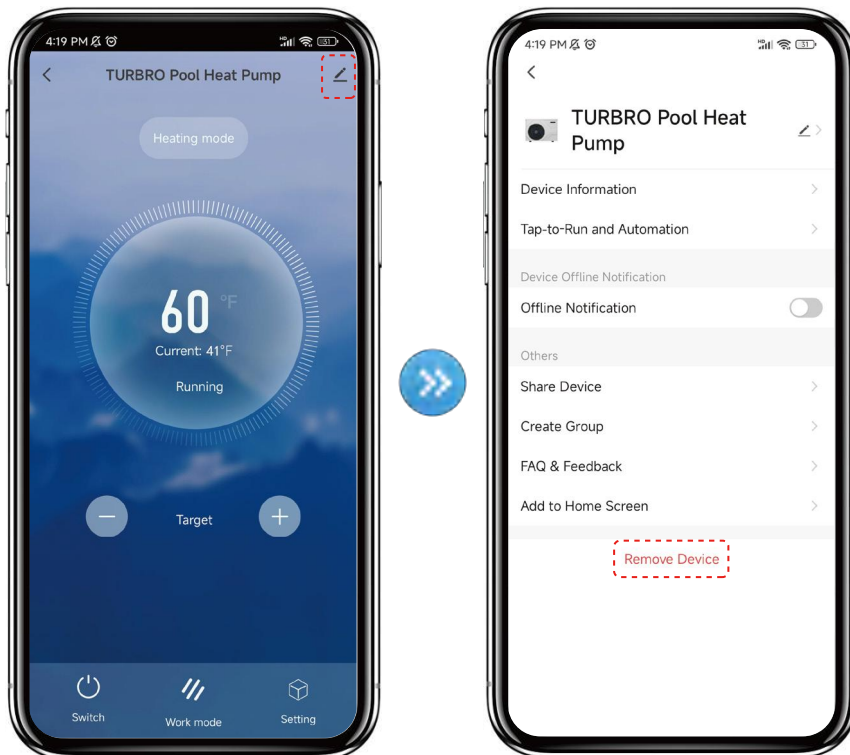
2. After entering the timer setting, swipe up/down to set the timer, set up repeat weeks and on/off, then click “save” to save your settings as follows.



- 1 Hours
- 2 Minutes
- 3 Set the Repetition
- 4 Set Power ON/OFF
- 5 Save Your Modification

## ● Device Removal

Click “” on the top right corner of the main interface to enter the device details interface, and click “Remove Device”.









## MAINTENANCE AND WINTERIZING

**WARNING:** Before undertaking maintenance work on the unit, ensure that you have disconnected the electrical power supply.

### ● Query System Status

1. At the main interface, press "  " for 3s to enter the system status interface. Press "  " and "  " to adjust.
2. Press "  " or 1 minute without key operation, and the interface will exit.

### ● Cleaning

1. The heat pump's casing must be cleaned with a damp cloth. The use of detergents or other household products could damage the surface of the casing and affect its properties.
2. The evaporator at the rear of the heat pump must be carefully cleaned with a vacuum cleaner and soft brush attachment.
3. Clean your pools and filtration system regularly to avoid damage to the unit because of a dirty or clogged filter.
4. Under extreme weather conditions (e.g. snow drifts), ice may form on the air intake and exhaust air outlet grids. If this happens, the ice must be removed in the vicinity of the air intake and exhaust air outlet grids to ensure that the minimum air flow rate is maintained.

### ● Annual Maintenance

The following operations must be undertaken by a qualified person at least once a year.

1. Carry out safety checks.
2. Check the integrity of the electrical wiring.
3. Check the earthing connections.
4. Monitor the state of the pressure gauge and the presence of refrigerant, if you need to replace the refrigerant or repair the machine, please contact professional maintenance personnel to handle it.
5. In winter, it is preferred to cover the unit with the specialized winter heat pump cover after each use.
6. At any other moment, check the water flow to confirm there is enough water before the unit starts to run again.

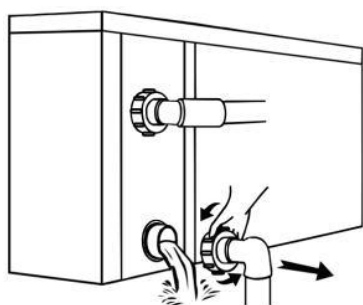
## ● Winterizing



**“CUT OFF” power supply of the heater  
before cleaning, examination and repairing**

In the winter season when you don't swim:

1. Cut off the power supply to prevent any machine damage.
2. Drain water clear of the machine.



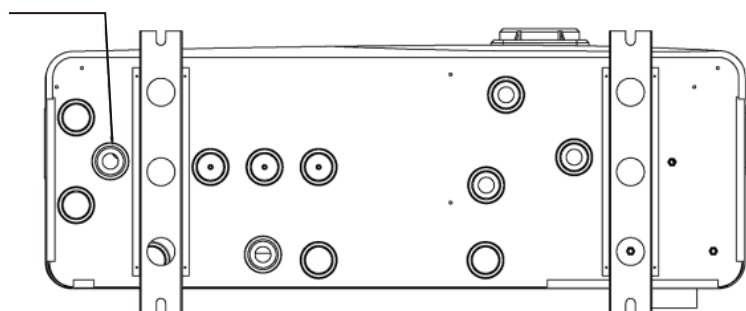
### **!! Important:**

Unscrew the water nozzle of the inlet pipe to let the water flow out. When the water in the machine freezes in the winter season, the titanium heat exchanger may be damaged.

3. Drainage of chassis condensate.

Drain Hole

**Bottom View**



### **!! Important:**

When the unit runs at an ambient temperature of less than 41°F, please remove the rubber plug of the drain hole of the chassis to ensure its smooth drainage.

4. Cover the machine body when not in use.

## TROUBLESHOOTING

### Fault & Protections

Fault Code	Fault Details	State
EE	Inlet and outlet water temp.sensor fault	Stop
E01	Wire controller communication protection	Stop
E02	Driver communication protection	Stop
E03	AC current protection	Stop
E04	AC voltage protection	Stop
E05	DC voltage protection	Stop
E06	Phase current protection	Stop
E07	IPM over temp. protection	Stop
E08	DC current protection	Stop
E09	High exhaust temp. protection	Stop
E10	Ambient temp. protection	Stop
E11	High-pressure protection	Stop
E12	Low-pressure protection	Stop
E14	Low outlet water temp. protection (Cooling)	Stop
E15	High coil temp.protection (Cooling)	Stop
E16	High outlet water temp. protection (Heating)	Stop
E17	Water flow protection	Stop
E18	High-pressure switch protection	Stop
E19	Low-pressure switch protection	Stop
E20	Power supply phase sequence error	Stop
E21	Power supply phase A lost fault	Stop
E22	Inlet and outlet temp. difference too high protection	Stop
E23	Low ambient temp. protection (Heating)	Stop
E24	Low ambient temp. protection (Cooling)	Stop
E25	Low inside coil temp. protection (Cooling)	Stop

Fault Code	Fault Details	State
E26	DC-Fan fault (No feedback speed)	Stop
E27	Power supply phase B lost fault	Stop
E28	Power supply phase C lost fault	Stop
E29	Parameter reading fault (Reserved)	Run
E37	IPM protection	Stop
E38	Driver module protection	Stop
E49	Inlet sensor fault	Stop
E50	Coil sensor fault	Keep running
E51	Exhaust sensor fault	Stop
E52	Suction sensor fault	Keep running
E53	Inside coil sensor fault	Keep running
E54	Ambient sensor fault	Keep running
E57	Outlet sensor fault	Stop
E63	High-pressure sensor fault	Stop
E64	Low-pressure sensor fault	Stop
D17	Driver 1 IPM over current protection	Stop
D18	Driver 1 compressor fault (except IPM fault)	Stop
D19	Driver compressor over current protection	Stop
D22	Driver IPM high temp. protection	Stop
D23	Driver PFC fault	Stop
D24	Driver DC bus high voltage protection	Stop
D25	Driver DC bus low voltage protection	Stop
D26	Driver AC low voltage protection	Stop
D27	Driver AC over current protection	Stop
D32	Driver communication fault	Stop
D33	Driver IPM temp. protection	Stop
D34	Driver DC fan 1 fault	Stop
D35	Driver DC fan 2 fault	Stop
D36	Driver transformer input 15V low voltage protection	Stop

## WARRANTY INFORMATION

This 1-year limited warranty is extended to the original purchaser of this product and warrants against any defect in materials and workmanship under normal use and conditions, for a period of one year from the date of the original purchase, subject to the conditions and limitations outlined below.

This warranty is non-transferable to any subsequent owner of the product regardless of whether the product is transferred during the specified term of the warranty.

THIS LIMITED WARRANTY IS GIVEN TO THE PURCHASER IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE.

### What is covered?

- TURBRO's warranty extends only to products purchased from authorized sellers that are subject to TURBRO's quality controls and have agreed to follow its quality controls.
- This warranty is limited to the repair or replacement of part(s) proved to be defective in material or workmanship after said defect is confirmed by the manufacturer's inspection.
- The manufacturer may, at its discretion, fully discharge all obligations with respect to this warranty by refunding the wholesale price of the defective part(s).

UPON THE EXPIRATION OF THIS WARRANTY, ALL SUCH LIABILITY WILL TERMINATE. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED ANYMORE.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

### What is not covered?

- Damage or losses caused by any alterations or unauthorized repair made to the product by the owner.
- Damage or losses caused by accident, neglectful operation, misuse, abuse, or use contrary to the user manual and safety guidelines.
- Damage or losses occurring during commercial use, rental use, or any use for which the product is not intended.
- Damage or losses caused by improper or inadequate maintenance.

- Failure to perform general maintenance (including cleaning).
- Use of non-standard parts or accessories.
- Natural depreciation and normal wear and tear.

TURBRO SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW.

Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

## How to request warranty services?

To obtain the benefit of this warranty please leave a message online ([www.turbro.com/contact](http://www.turbro.com/contact)), or send an email to [support@turbro.com](mailto:support@turbro.com).

To express our gratitude to you for choosing us, we are giving you a 1-year warranty extension to the original 1-year manufacturer's limited warranty, extending the coverage period to two years in total.

- Complete the registration of your new product at <https://www.turbro.com/warranty> within 90 days from the date of package delivery (inclusive of the 90th day).
- Any registration beyond this stipulated period will be deemed invalid.
- The ultimate interpretation of the terms and conditions related to the extended warranty service rests solely with TURBRO.

If you discover that your product is defective within the specified warranty period, please contact our Customer Support via [support@turbro.com](mailto:support@turbro.com).

- Order ID and invoice, or bill of sale should be provided. Such payment record must be kept to verify the purchase date and establish a warranty period.
- Model and issue description should be provided in detail, preferably with pictures and videos.
- DO NOT dispose of your product before contacting us.
- DO NOT return the product unless instructed by our customer service.
- The original carton should be kept in case of warranty return of the unit.

## What will TURBRO do?

- Replace certain parts.
- Replace the item.
- Refund the item under certain circumstances.

In no event shall liability exceed the purchase price paid by the original purchaser of the product.

Any instructions or warranty included in this manual may be subject to change without notice. For the most up-to-date instructions and warranty information, please contact us via **support@turbro.com**.



**WARNING Cancer and Reproductive Harm**  
[www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

## FCC STATEMENT

This equipment has been tested and found to comply with the limits for a ClassB digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. To assure continued compliance, any changes or modifications not expressly approved by the party.

Responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices).

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:

The equipment complies with FCC Radiation exposure limits set forth for uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

# **TURBRO**



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